Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Currently Amended) A method for filtering the noise of a sequence of digital images in video format comprising ~~the following phases~~:

processing a first video image of the sequence to obtain a corresponding improved video image with reduced noise;

processing at least one pixel of a second video image of the sequence that temporally follows said first video image, said ~~phase of~~ processing the at least one pixel providing a corresponding filtered pixel and said processing the at least one pixel including ~~the following operations~~:

selecting a first set of pixels ~~comprising said~~ including the at least one pixel and a plurality of pixels of the second video image spatially adjacent to ~~it~~ the at least one pixel;

selecting a second set of pixels ~~comprising~~ including pixels of the corresponding improved video image homologous with the pixels of said first set of pixels;

carrying out a digital filtering of a first type using pixels ~~forming part of~~ from said first set of pixels selected from the second video image and pixels from said second set of pixels selected from the corresponding improved video image to generate the corresponding filtered pixel.

2.   (Currently Amended) A method in accordance with Claim 1, further comprising ~~also a phase of~~:

carrying out a first evaluation of motion of the at least one pixel, using pixels forming part of said first set of pixels and part of said second set of pixels; and in which said at least one pixel is such that said first evaluation of motion is smaller than a first threshold value.

3.   (Currently Amended) A method in accordance with Claim 1, ~~further~~ comprising ~~also a phase of~~:

processing ~~a further~~ another pixel of said second ~~video~~ image, said ~~phase of~~ processing the ~~further~~ another pixel providing a corresponding ~~further~~ another filtered pixel and said processing the another pixel including ~~the following operations~~:

selecting a third set of pixels ~~comprising said further~~ including the another pixel and a plurality of pixels of the second video image spatially adjacent to it;

selecting a fourth set of pixels ~~comprising~~ including pixels of the improved video image homologous with the pixels of said third set of pixels;

carrying out ~~a further~~ another evaluation of motion of the ~~further~~ another pixel, using pixels forming part of said third set of pixels and part of said fourth set of pixels;

whenever ~~said further~~ the another evaluation of motion is smaller than said first threshold value, carrying out a digital filtering of a second type that generates the ~~further~~ another filtered pixel by using exclusively pixels forming part of said third set of pixels.

4.   (Currently Amended) A method in accordance with Claim 1, wherein each video image of the sequence is made up of a respective pixel matrix, the pixels of said respective pixel matrix being associated on the basis of their respective positions with one of a set of chromatic components, and wherein said first set of pixels and said second set of pixels comprise pixels associated with the same chromatic component of the at least one pixel.

5.   (Currently Amended) A method in accordance with Claim 4, wherein ~~the images of the sequence are~~ each video image of the sequence is in Bayer CFA format and said chromatic components form part of the set ~~comprising~~ including the color red, the color green and the color blue.

6.   (Currently Amended) A method in accordance with Claim 5, wherein ~~the phase of~~ selecting the first set of pixels ~~is carried out by means of selection matrices that differ~~ aligns a selection matrix according to the chromatic component of the at least one pixel, the

selection ~~matrices~~ matrix being such as to select pixels that are situated in the neighborhood of the at least one pixel and having the same chromatic component as said at least one pixel, ~~discarding the others,~~ and discard pixels having a different chromatic component as said at least one pixel, the selection ~~matrices~~ matrix being ~~also~~ identical for the chromatic components red and blue.

7.   (Currently Amended) A method in accordance with Claim 1 ~~that includes also a phase of~~ further comprising:

making an estimate estimating a statistical parameter σ_n^{GL} representative of ~~the~~ global noise present in said first video image ~~(Img$_{n-1}$)~~, the digital filtering of the first type utilizing ~~also~~ said statistical parameter.

8.   (Currently Amended) A method in accordance with Claim 7, further comprising ~~also the following phases~~:

selecting a plurality of pixels of the first video image;

calculating a plurality of local estimates~~,~~;

wherein calculating the plurality of local estimates includes calculating for each given pixel of said plurality of pixels a respective estimate of a statistical parameter representative of ~~the~~ local noise ~~in~~ present in a neighborhood of the given pixel; and

wherein said estimate of the statistical global noise parameter σ_n^{GL} is obtained from said plurality of local estimates.

9.   (Original) A method in accordance with Claim 8, wherein said local estimates are local variance measures.

10.   (Currently Amended) A method in accordance with Claim 8, wherein said plurality of pixels ~~comprises~~ includes pixels forming part of homogeneous regions of the first video image.

11.   (Currently Amended)   A method in accordance with Claim 1, _further comprising:_

identifying ~~wherein said digital filtering of the first type utilizes~~ a subset of pixels ~~forming part of said first and said second set of pixels, said subset being identified by means of a further~~ from part of said first set of pixels and part of said second set of pixels during a selection phase carried out in accordance with a Duncan Range Test, wherein said digital filtering of the first type utilizes the subset of pixels.

12.   (Currently Amended)   A method in accordance with Claim 3, _further comprising:_ ~~also a phase of~~

estimating for the ~~further~~ another pixel ~~a further~~ another statistical parameter representative of the noise present on the pixels of said third set of pixels, said ~~further~~ another statistical parameter estimated ~~also on the basis of the~~ according to a specific color of the ~~further~~ another pixel, the digital filtering of the second type utilizing said ~~further~~ another parameter.

13.   (Currently Amended)   A computer readable memory programmed to direct a filter for reducing ~~the~~ noise ~~of~~ in a sequence of images in CFA format, ~~characterized in that said noise reduction is obtained by means of a method~~ the filter operable in accordance with the method of claim 1.

14.   (Currently Amended) An acquisition device ~~for acquiring a sequence of digital images in CFA format~~, comprising:

a sensor including a CFA filter, wherein the sensor is ~~for acquiring said~~ operable to acquire a sequence of digital images in CFA format, ~~said sensor comprising a~~ and wherein the CFA filter, ~~characterized in that~~ is operable to process the sequence of digital images in CFA format ~~is processed by means of a noise filtering method~~ in accordance with the method of claim 1.

15.   (Currently Amended) A method of filtering noise from a digital video image comprising:

processing a first image to generate an improved image;

processing a second, subsequent image after processing the first image;

selecting a first pixel from the second, subsequent image during the processing of the second, subsequent image;

selecting a first set of pixels in the second, subsequent image that are have a predetermined spatial relationship to the first pixel;

locating a corresponding second set of pixels in the first image that correspond to the first set of pixels in the second, subsequent image; and

filtering the first pixel using data from both the first set of pixels and the second set of pixels.

16.   (Currently Amended) The method according to Claim 15 further including comprising:

performing spatial filtering on the first pixel;

determining a motion component between the first set of pixels and the second set of pixels; and

carrying out a motion compensator filtering if the first motion component between the first set of pixels and the second set of pixels is above a selected threshold and not carrying out motion compensation filtering if the motion component between the first set of pixels and the second set of pixels is below a selected threshold.